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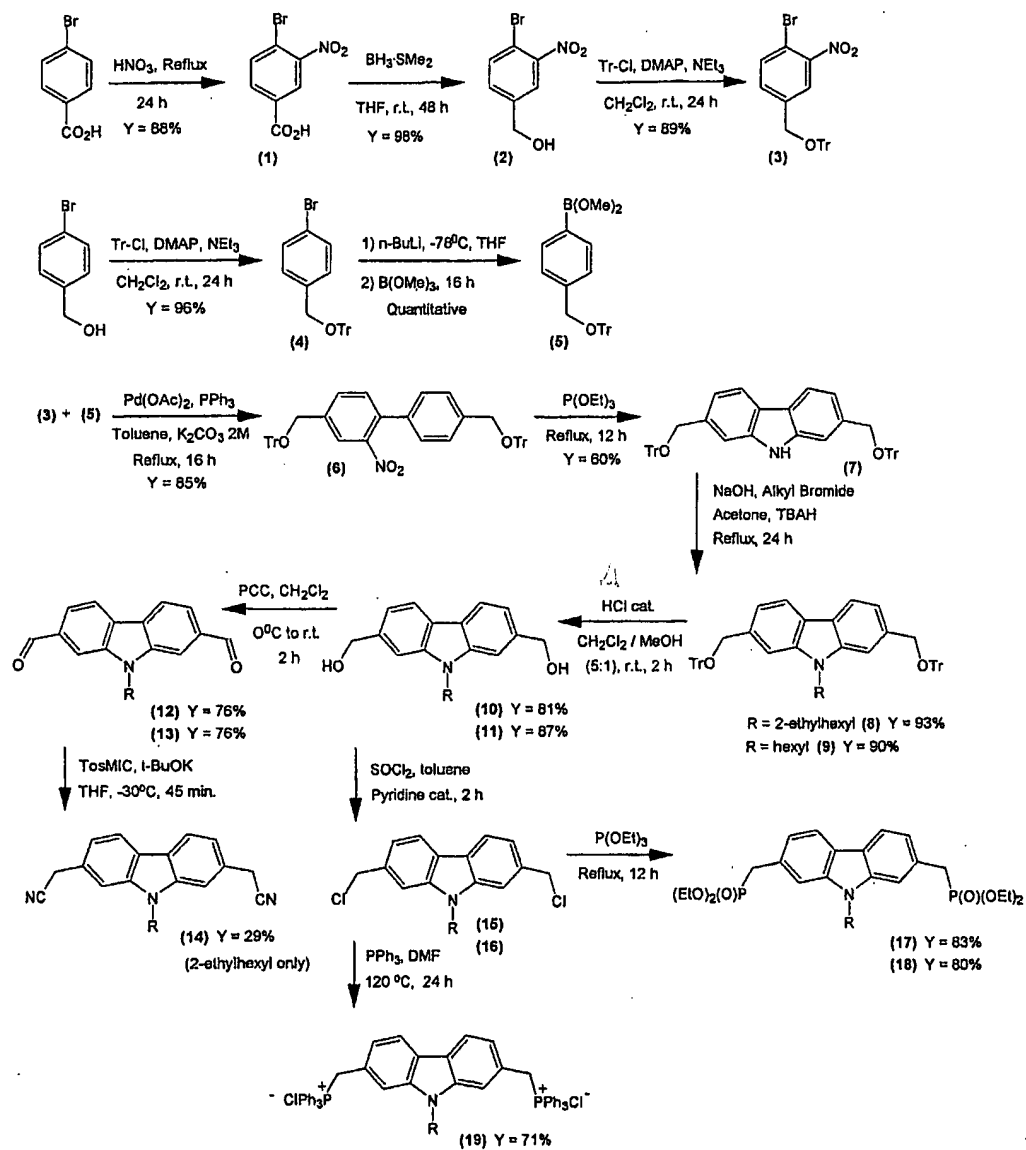


Figure 1

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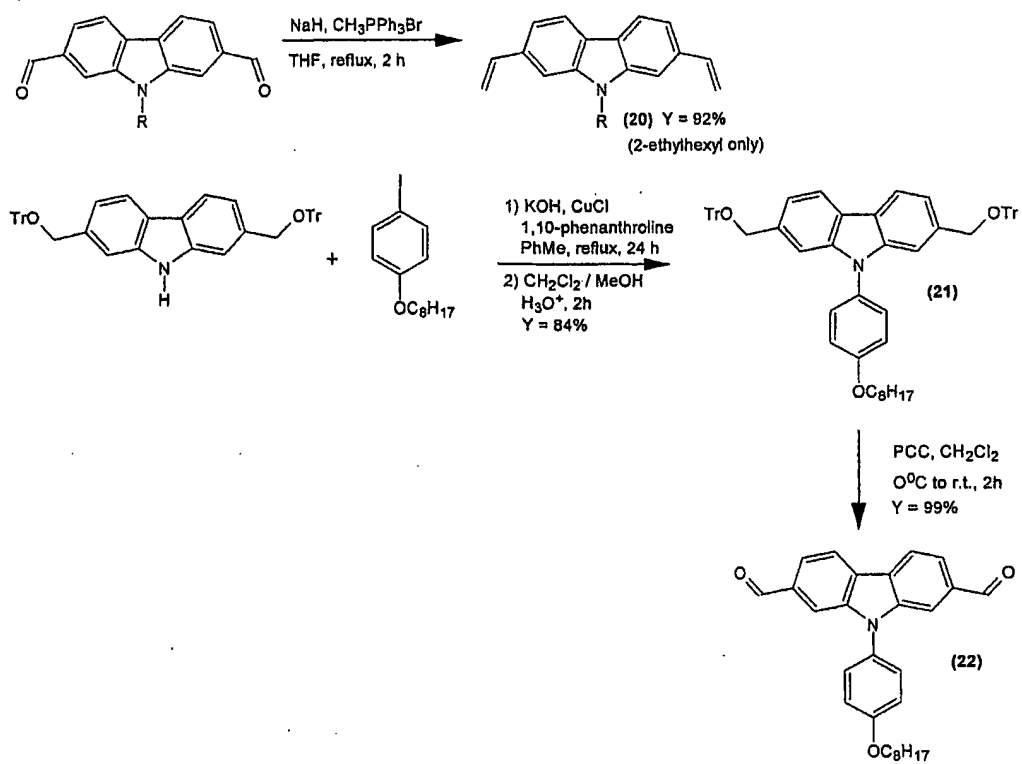


Figure 1 (continued)

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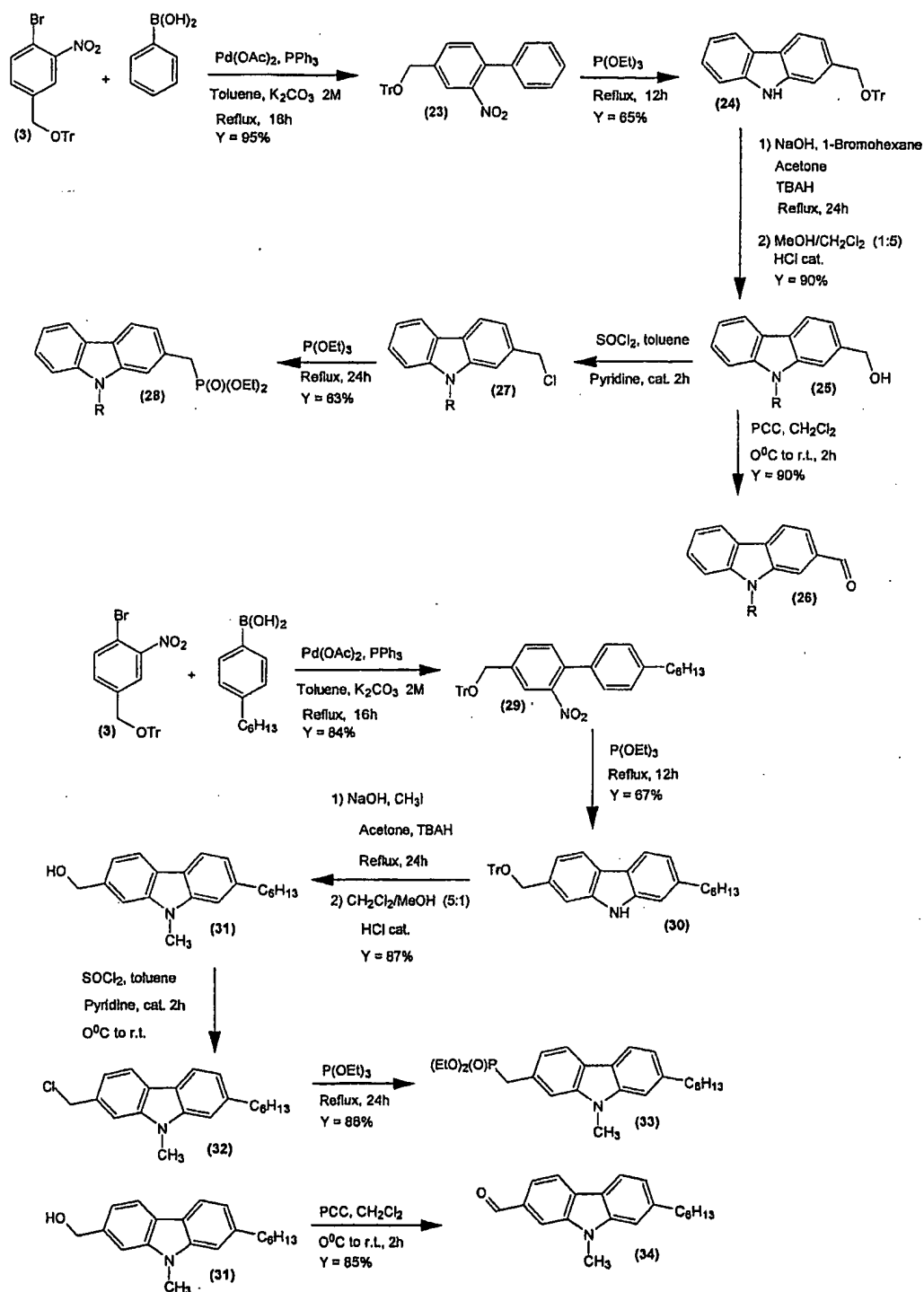


Figure 2

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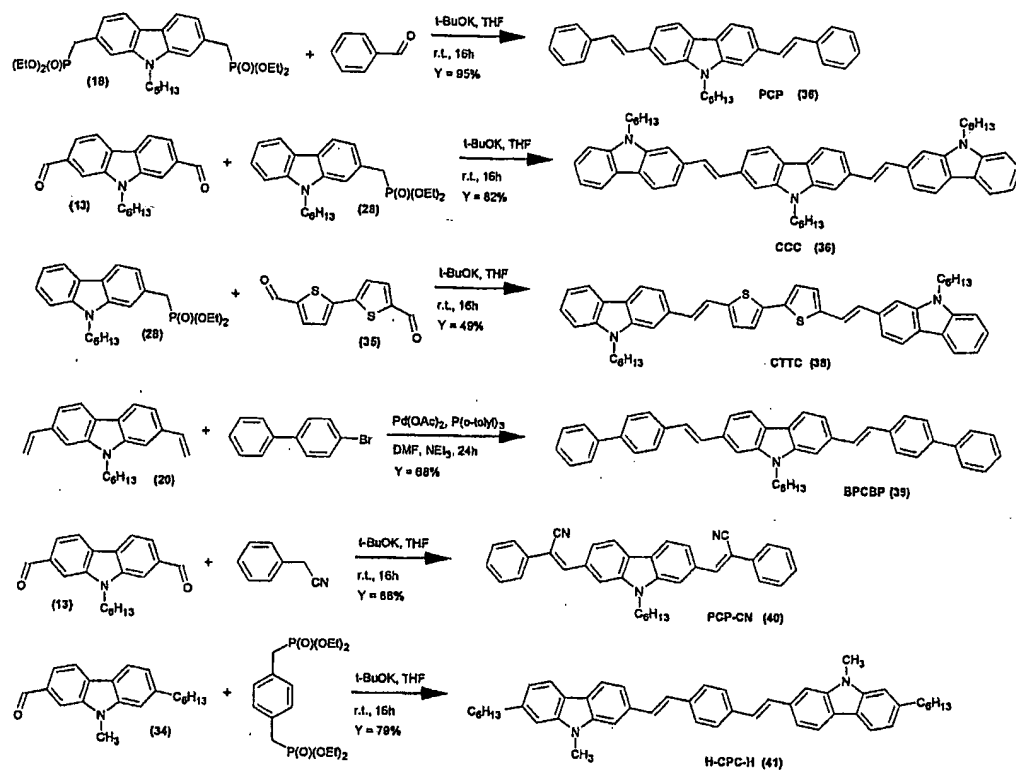
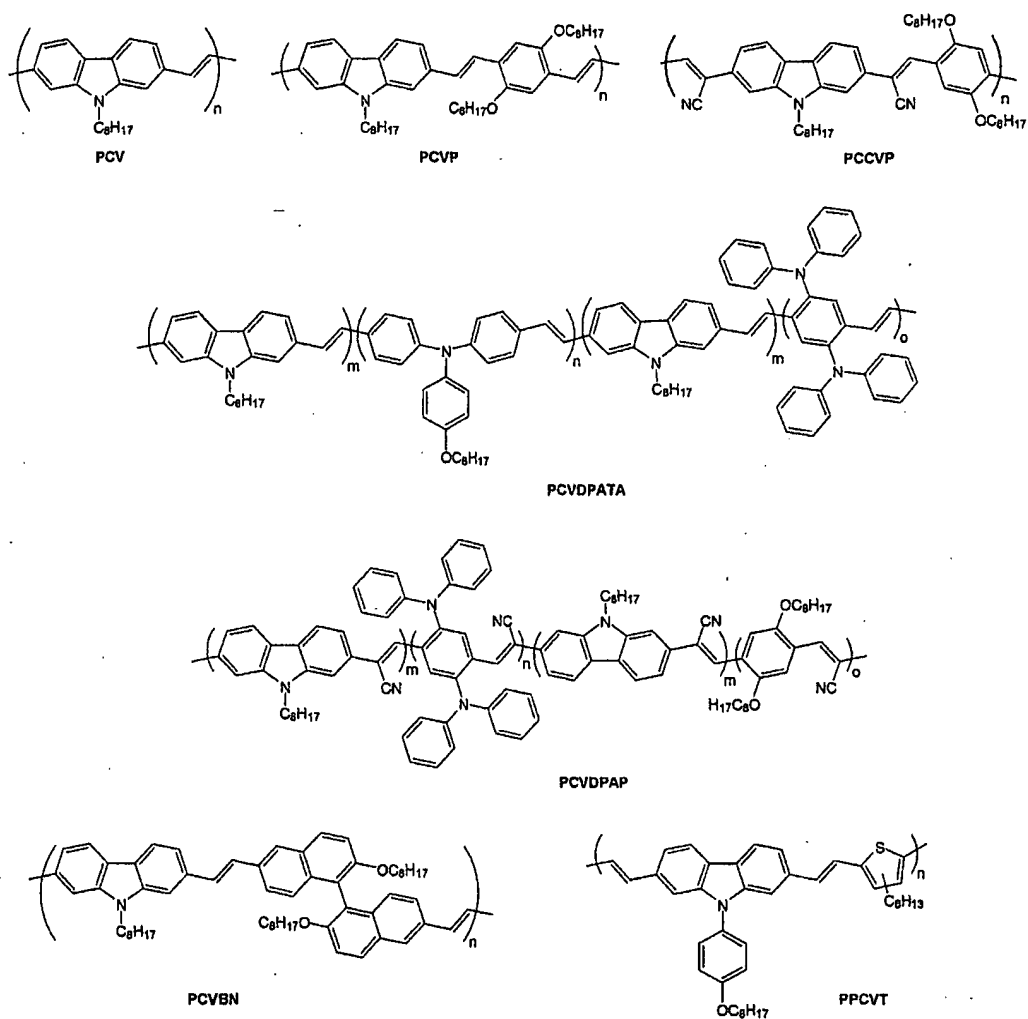


Figure 3

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### Figure 4

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Polymer	Yields <sup>d</sup>	M <sub>n</sub> (kDa)	I <sub>p</sub> (M <sub>w</sub> /M <sub>n</sub> )
Example 7 (PCV <sup>a</sup> )	10		
Examples 8,9 (PCVP <sup>b</sup> )	76	10.2	2.1
Example 8, 9 (PCVP <sup>c</sup> )	61	10.5	4.6
Example 10 (PCCVP)	68	7.9	4.4
Example 11 (PCVDPATA)	51	10.2	3.7
Example 12 (PCVDPAP)	66	28.2	4.3
Example 13 (PCVBN)	24	4.1	1.2
Example 14 (PPCVT <sup>a</sup> )	10		

<sup>a</sup> PCV and PPCVT are insoluble in THF<sup>b</sup> Synthesized by Wittig reaction<sup>c</sup> Synthesized by Wittig-Horner reaction<sup>d</sup> Calculated from the soluble part of the polymer**Figure 5**

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Polymer	Solution $\lambda_{\max}$		Thin film $\lambda_{\max}$		$\Phi_F$
	Abs.	Emi.	Abs.	Emi. <sup>a</sup>	
PCV (Example 7)	426	469 (499)	430		0.52
PCVP (Examples 7,8)	456	505 (539)	456		0.40
PCCVP (Example 10)	481	546 (586)	502	658	0.67
PCVDPATA (Example 11)	440	526	440		0.27
PCVDPAP (Example 12)	472	547 (655)	500	655	0.26
PCVBN (Example 13)	396	440 (467)	398		0.56
PPCVT (Example 14)					

<sup>a</sup> Solid state fluorescence can only be observed for PCCVP and PCVDPAP

Figure 6

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Oligomer	$\lambda_{\text{max}}$ sol.	$E_{\text{peak ox}}$ ( $E_{\text{onset ox}}$ ) V vs. SCE	$E_{\text{g optical}}$ (eV)
PCP (Example 1)	376	1.26 (1.09)	2.92
CCC (Example 2)	402	1.03 (0.91)	2.73
CTTC (Example 3)	453	0.92 (0.81)	2.36
BPCBP (Example 4)	392	1.24 (1.03)	2.78
PCP-CN (Example 5)	399	1.58 (1.41)	2.63
H-CPC-H (Example 6)	399	0.99 (0.76)	2.78

Figure 7



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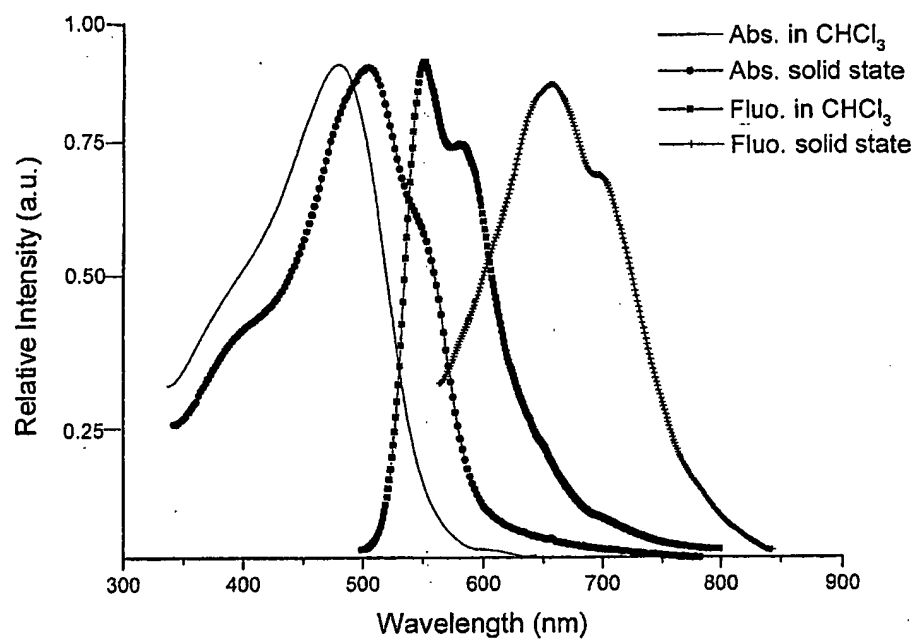


Figure 8